The U.S. Marine Transportation System

Federal responsibilities, funding, and coordination.

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Mr. Rajiv Khandpur has been involved with the Committee on the Marine Transportation System since its inception and was one of the key members of the initial group of agency representatives who developed the charter and the governance guidelines. He is also largely responsible for organizing this edition that showcases the work of all the federal agencies that are actively engaged in the activities that support this valuable U.S. asset. His overview follows.

Navigating a "marine highway" or a waterway system is similar in many ways to traveling on an interstate highway. To travel on a highway, you need a vehicle that is safe and certified by the authorities; a licensed driver; a paved highway, with traffic lights and directional signage; a map to give you some idea of where you are going and to provide information about road signs; and perhaps a global positioning system unit to provide a "fix" along your journey.

Along the way, you might travel through tunnels or come across highway maintenance road crews. If you encounter snow and ice, snow plows will clear the roads and trucks may deposit sand or salt to make the cleared roads more navigable. So a simple highway journey from point "A" to point "B" can require a lot of manpower and physical infrastructure support.

All of these items have a parallel in the marine transportation system: The vehicles are the vessels that must pass safety inspections and be certified by the U.S. Coast Guard; the crews that "drive" these vessels must also be trained and licensed for the jobs they perform. The waterways around our rivers, harbors, and coastal areas must be dredged (just as the paved roads of the highway system must be maintained), and aids to navigation (traffic signals) must be provided so that mariners can navigate safely without running into each other or running aground.

Perhaps the only component of the marine transportation system (MTS) that does not have a parallel in the interstate highway system are the locks, which allow vessels to move from one water elevation to another and are an integral part of the infrastructure. Finally, during winter, navigable lakes and rivers do freeze and must be cleared of ice to facilitate water transportation—enter the icebreakers.

The Role of the Federal Government

Even more than the other parts of the nation's transportation system, marine transportation is a joint private and public sector enterprise. The private sector owns and operates the vessels and most of the terminals and is responsible for the commerce that flows through the system. The public sector provides much of the infrastructure to keep the system functioning in a safe, secure, and environmentally sound manner. While the responsibility of building, maintaining, and monitoring the interstate highway system rests mainly with federal and state departments of transportation, the responsibility for the MTS is carried out by many federal agencies.

For example, the National Oceanic and Atmospheric Administration surveys navigable waterways and issues charts depicting waterway depth as well as obstructions. The aforementioned locks and dams are mostly built and maintained by the U.S. Army Corps of Engineers, though the St. Lawrence Seaway Development Corporation has that responsibility on the St. Lawrence

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Seaway. Finally, though there are some private "ice-breakers," most of these services are provided by the U.S. and Canadian Coast Guards.

Other agencies such as the Federal Maritime Commission, the National Transportation Safety Board, and the Departments of Commerce and Justice also play a big part in the nation's marine transportation system, as discussed in later articles in this edition. Some of the other agencies that play a big role in the MTS include:

- the Maritime Administration promotes and facilitates MTS use;
- the U.S. Department of Agriculture works to link U.S. agriculture to the world and so depends heavily on navigable waters to facilitate the movement of grain and other commodities;
- the Department of Interior (Bureau of Ocean Energy Management and Regulation Enforcement), which regulates offshore oil platform safety;
- the Military Sealift Command and U.S. Transportation Command deliver supplies, people, and equipment to support the U.S. Navy and the Department of Defense;
- U.S. Custom and Border Protection secures our homeland by preventing the illegal entry of people and goods while facilitating legitimate travel and trade;
- the Environmental Protection Agency regulates environmental standards.

Congressional Committees

Just as many federal agencies "own" parts of the nation's marine transportation system, many congressional committees and subcommittees also have jurisdiction.

The House Transportation and Infrastructure Committee. As the name suggests, this committee has jurisdiction over all modes of transportation, including aviation, maritime and waterborne transportation, roads, bridges, mass transit, and railroads.

Its purview also includes other aspects of national infrastructure, such as clean water and waste management, the transport of resources by pipeline, flood damage reduction, the economic development of depressed rural and urban areas, disaster preparedness and response, activities of the U.S. Army Corps of Engineers, and various missions of the Coast Guard.

These areas of jurisdiction provide a comprehensive view of how communities across the United States are connected to one another, how infrastructure affects the growth and flow of commerce at home and abroad, and how an effective government can improve the lives of its citizens.

Currently the largest committee in the House of Representatives, its six subcommittees are:

- Aviation
- Coast Guard and Maritime Transportation
- Economic Development, Public Buildings, and Emergency Management
- Highways and Transit
- Railroads, Pipelines, and Hazardous Materials
- Water Resources and Environment

The Senate Committee on Commerce, Science, and Transportation. This committee's oversight is also very wide-ranging. In addition to the air, surface, and water transportation modes, it also exercises jurisdiction over competitiveness, exports, and consumer protection.

It is composed of seven subcommittees, as follows:

- Aviation Operations, Safety, and Security
- Communications, Technology, and the Internet
- Competitiveness, Innovation, and Export Promotion
- Consumer Protection, Product Safety, and Insurance
- Oceans, Atmosphere, Fisheries, and Coast Guard
- Science and Space
- Surface Transportation and Merchant Marine Infrastructure, Safety, and Security

Toward More Unified Efforts

Since federal responsibilities are dispersed over so many different agencies, it is easy for each federal agency to concentrate on its own statutory authorities and funding to accomplish its own mission. Not only is it easy, it is a statutory requirement.

If each agency is working within its own "silo," however, this can lead to a situation where no one is minding the "national" interest. Opportunities for collaborating are lost—or, worse, agencies may be working at cross-purposes. There is also no central repository of system-level performance data that could be analyzed across agencies to determine a prioritized list of projects across the federal government.

To improve federal coordination, budget requests, and regulatory activities and policies that impact the MTS, President Bush in 2004 directed the creation of the Cabinet-level Committee on the Marine Transportation System (CMTS). The CMTS is chaired by the secretary of the Department of Transportation and works to coordinate federal efforts through a series of subordinate-level

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Matrix Comparison of Federal Agencies with Significant Responsibilities for MTS Functions

	Transportation-Related Functions	MTS Functions / Activities	Departments														
			DHS			Transportation			Commerce	Independent		Interior			Defense	
			USCG	TSA	CBP	MARAD	SLS	RITA	ITA	NOAA	EPA	NTSB	USFWS	USGS	BOEMRE	USACE	DOD
Infrastructure and Mobility	Signage	Aids to Navigation	■														
	Infrastructure	Dredging, Locks / Dams					■			■	■					■	
		Ports-Terminals-Connectors				■					■					■	
		Bridges	■													■	
		Short Sea Shipping	■			■					■						
	International Competitiveness	Supply Chains and Efficient Freight Flow			■				■								
	Research and Technology	Ships, Shipyards, Equipment, Infrastructure	■		■	■	■	■		■	■					■	■
		Information and Management Systems	■	■	■	■	■	■		■	■					■	■
		MTS Data and Statistics	■			■	■	■								■	
	Leverage Private Investments	Title XI Program				■											
		Capital Construction Fund				■											
	Mass Transit	Ferry Systems	■			■		■									
	Traffic Management	Icebreaking	■														
		VTS	■														
		PORTS (Physical Oceanographic Real-Time Systems)								■							
		Vessel Traffic Separation Schemes	■														
		Pilotage on the Great Lakes	■														
		Rules of the Road	■														
		Abandoned / Sunken Vessels	■			■				■	■					■	■
Safety	Vehicle Inspection	Vessel Inspection	■														
		Offshore Platforms	■												■		
	Operational Restrictions	Vessel Restrictions	■													■	
		Waterway Restrictions	■		■											■	
	Investigation	Casualty	■									■					
	Equipment Approval	Lifesaving, Firefighting Equipment	■												■		
	Public Education / Awareness	Boating Safety	■							■							
	Vehicle, Traffic, and Environmental Information	International Ice Patrol	■														
		Weather								■							
		Tide and Current Data								■							
		Mariner Information	■			■				■				■		■	
		Charts	■							■				■			
		Vessel Documentation	■														
	Personnel	Crew Licensing	■														
	Assistance / Response	Search and Rescue	■							■							
		Maritime Disaster	■	■	■	■				■	■	■	■		■	■	■

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			USCG	TSA	CBP	MARAD	SLS	RITA	ITA	NOAA	EPA	NTSB	USFWS	USGS	BOEMRE	USACE	DOD
SECURITY	National Defense Deployment	Ready Reserve Fleet	■		■	■											■
	Security of Mode	Port and Waterways	■	■	■	■											
		Facilities, Vessels	■	■	■	■											
		Containers	■		■												■
	Border Crossing	Migrant/Contraband Interdiction	■		■												
	Incident Response	Terrorism	■	■	■											■	■
ENVIRONMENT	Prevention	HAZMAT/Oil	■		■					■	■		■		■	■	
		Ballast Water	■			■					■						
		Dredge Material								■	■					■	
		Marine Debris	■							■	■						■
		Invasive Species	■			■				■	■		■			■	
		Air Emissions	■			■					■					■	
		Water Discharges	■								■						
		Ship Scrapping				■											
		River Gauges (Flood Warnings)	■							■						■	
		Wake (Ships, Fast Ferries, etc.)	■			■				■	■					■	
	Response	HAZMAT/Oil	■							■	■				■		
	Natural Resource Restoration	Beneficial Use of Dredge Mat								■	■		■			■	
	Living Marine Resources	Mammals, Fish, etc.	■							■			■				
	Sensitive Areas	Marine Protected Areas	■			■				■			■				
ENTERPRISE EXCELLENCE	Skilled Transportation Workforce	Maritime Workforce Development	■			■											
	Coordination and Outreach	Interagency Coordination	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		Communication and Outreach	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

NOTE: This chart shows federal agencies with a significant role in the functioning of the Marine Transportation System and reflects the opinions of the author and not the Coast Guard. Further, while this list attempts to capture the most prominent MTS functions, it is not exhaustive.

Federal Funding

In September of 2002, the U.S. General Accounting Office conducted a study entitled "Federal Financing and a Framework for Infrastructure Investments," which gathered information on expenditures and collections from 15 federal agencies involved in supporting the commercial marine, aviation, and highway transportation systems for fiscal years 1999, 2000, and 2001.

Federal expenditures for the commercial marine transportation system averaged $3.9 billion per year, while collections from the users of the system averaged only about $1 billion annually. Since some of the collections from the system users were retained in MTS trust funds such as the Harbor Maintenance Trust Fund and the Inland Waterways Trust Fund, funding for about 80 percent of the $3.9 billion spent on marine transportation came from the U.S. Treasury's general fund.

As noted in the report:

"During the same three-year period, federal expenditures for aviation and highway transportation systems averaged $10 billion and $25 billion, respectively, each year. Unlike the funding approach for the marine transportation system, which relies extensively on general tax revenue, the federal funding approach for aviation and highway relies almost exclusively on assessments on users … During this period, federal agencies collected an average of $11 billion each year from users of the aviation transportation system and an average of $34 billion each year from users of the highway transportation system. As with the marine transportation system, most of these collections were credited to trust fund accounts."

The majority of federal funding for the MTS comes from the general treasury, unlike aviation or highway where the funding comes from their respective trust funds.

The report also documented that customs duties levied on commodities imported through the marine, aviation, and highways systems averaged $15.2 billion, $3.7 billion, and $928 million respectively.

Though the actual dollar values have changed over the last 10 years, the ratios of funds spent on each mode of transportation as compared to one another have not. The take-away: The majority of the federal funding for the marine transportation system comes from the general treasury, whereas the federal expenditures for the aviation and highways are well within the collections credited to their respective trust fund accounts.

Custom revenues generated through the maritime mode far exceed those generated through aviation or the highway system. However, custom revenues go to the general treasury and not to support the transportation mode.

Ironically, custom duties collected on imports through maritime traffic amounts to approximately $15.2 billion, which is almost four times as much as that collected through aviation ($3.7 billion) and 16 times as much as that of highway transport ($0.9 billion), but unlike assessments on users of a transportation system, customs duties are taxed on imported goods without regard to their mode of transportation and deposited to the general treasury.

bodies such as the coordinating board and integrated action teams.

A cornerstone of the work accomplished under its auspices is the "National Strategy for the Marine Transportation System: A Framework for Action," published in July 2008. This seminal document sets forth the federal framework for addressing the nation's marine transportation system challenges 20 years into the future in the areas of capacity, safety and security, environmental protection, resiliency, and infrastructure financing.

However, this is just the first step. Much work still remains to be done to tap into the synergies generated from a coordinated federal government working together on this issue.

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